SITE VERIFICATION >>						**Reviewers Initials**	
Stream Name (with location)							
AN-Code			**Reach Length (m)**			**Transect Spacing (m)**	
Basin		**County**			**Quad**		
Date		**Time**		**Geo (Main Habitat Person)**		**Bio (Main Bio Person)**	
Additional Electrofishing Crew				**Additional Habitat Crew**			
GPS Type		**EPE**		**Random #**		**XY's Proofed**		**By**	
Top of Reach (US) Lat	**N**	**Top of Reach (US) Long**	**W**				
Mid-Reach X-Site Lat	**N**	**Mid-Reach X-Site Long**	**W**				
Bottom of Reach (DS) Lat	**N**	**Bottom of Reach (DS) Long**	**W**				

X-site field <u>verified</u>?	□ **Yes** □ **No**	**If no, Why?**	□ **No Access-Physical Barrier** (□ ***Permanent*** / □ ***Temporary***) □ **No Access-Landowner Denial** (□ ***Verbal Denial*** / □ ***Posted*** / □ ***Fenced*** / □ ***Private***) □ **Other:**
Is site <u>target</u> and sampleable? <u>ANSWER EVEN IF YOU DID NOT SEE THE SITE!</u>	□ **Yes** □ **No**	**If no, Why?**	□ **Low Flow** (□ ***Permanent-Not Drought*** / □ ***Temporary-Drought***) □ **Ephemeral** □ **Too Deep** (□ ***Permanent-Not Wadeable*** / □ ***Temporary***) □ **No Riffle/Run** □ **Wetland** □ **Filled** (□ ***Mining*** / □ ***Farm*** / □ ***Urban/Residential*** / □ ***Road*** / □ ***Industry***) □ **Impounded** (□ ***Lake*** / □ ***Mining*** / □ ***Farm*** / □ ***Beavers*** / □ ***Navigation*** / □ ***Industry***) □ **No Stream Present (Map Error)** □ **Other:**
Detailed notes on verification, access, & sampleability of site.			

<u>Sampled</u>?	□ **Yes** □ **No**	**Sample Type**	□ **YSI** □ **Lab** □ **Fecal** □ **Habitat** □ **Bugs** □ **Fish** □ **Other**		
Dup Type	□ **YSI** □ **Lab** □ **Fecal** □ **Habitat** □ **Bugs**	**Dup WQ ID**		**Was site moved (non-random)?**	□ **Yes** □ **No**
Explanation?					
Directions To Site					

Transect Info

Transect Name	Reach Location (m)	Evaluation Status	Bank	Transect Notes
A (US)		□ Complete □ Partial	□ LDB □ RDB □ Both	
B		□ Complete □ Partial	□ LDB □ RDB □ Both	
C		□ Complete □ Partial	□ LDB □ RDB □ Both	
D		□ Complete □ Partial	□ LDB □ RDB □ Both	
E		□ Complete □ Partial	□ LDB □ RDB □ Both	
F (X)		□ Complete □ Partial	□ LDB □ RDB □ Both	
G		□ Complete □ Partial	□ LDB □ RDB □ Both	
H		□ Complete □ Partial	□ LDB □ RDB □ Both	
I		□ Complete □ Partial	□ LDB □ RDB □ Both	
J		□ Complete □ Partial	□ LDB □ RDB □ Both	
K (DS)		□ Complete □ Partial	□ LDB □ RDB □ Both	

Notes		**<u>X-site</u> WQ Sample ID**	

Reviewers Initials		*STREAM REACH MAP>>*

Sketch of Assessment Reach & Comments: Identify North with (↑ & N), flow direction (→ or ←), upper end (US) and lower end (DS) of reach, transects (A-K) and riparian plots (box), bug samples (b), water sample location (wq), X-site lat and long (X), approximate position of thalweg in channel (draw a line longitudinally through reach) and any landmarks/events that could be useful for relocating the site at a later date.

ACTIVITIES AND DISTURBANCES >>>		Reviewers Initials	
AN-Code		**Date**	

Local Watershed Erosion	☐ None ☐ Slight ☐ Moderate ☐ Heavy
Recent Stream Scouring	☐ None ☐ Slight ☐ Moderate ☐ Heavy

Atmospheric Odors (Rate 0-4 or NR)		**Odor Description**	
Local NPS Pollution	☐ None ☐ Potential ☐ Obvious	**If obvious, magnitude?**	☐ Slight ☐ Moderate ☐ Heavy
Specify Obvious or Potential NPS (feedlot, etc.) other than Siltation/Sedimentation!			
Point Source Discharges	☐ Yes ☐ No	**Pt. Source(s)**	

Stream Reach Activities & Disturbances (Rate 1-Low, 2-Moderate, 3-High, 4-Extreme In Each Box That Applies)

Residential		Recreational		Agricultural		Industrial		Management	
	Residences		Parks/ Campground		Annual Row Crops		Industrial Plants		Liming
	Lawns		Parking Lots		Pasture		Surface Mine		Rip/Rap or Bank Stabilization
	Power Lines		Boat Access/ Dock		Hay Production		Deep Mine		Dredging
	Construction		Swimming		Orchards		Coal Prep		Channelized
	Pipes/Drains		Fishing		Poultry		Quarries		Fill
	Bridges/Culverts		Pipes/Drains		Livestock Access		Railroad		Dams/Impounded
Width / Surf Type	Road Intensity		Foot Trails		Irrigation		Logging	Multipurpose State or County Maintained Roads	
			ATV, Horse, Bike Trails		Pipes/Drains		Power lines	Width	
Codes for Width and Surface Type are Displayed on the Right Under Multipurpose State or County Maintained Roads.			Bridges/Culverts		Bridges/Culverts		Woodyards/ Sawmills		A=Single Lane
		Width / Surf Type	Road Intensity	Width / Surf Type	Road Intensity		Sanitary Landfill		B=Double Lane
							Waste H2O Treatment		C=Multi-Lane
							Drinking H2O Treatment	Surface Type	
							Pipes/Drains		A=Dirt
							Parking Lots		B=Rutted Dirt
							Bridges/Culverts		C=Applied Limestone
							Gas/Oil Well		D=Applied Non-Limestone
							Gas/Oil Lines		E=Asphalt
						Width / Surf Type	Road Intensity		F=Concrete
									Road Intensity

Elaborate on any of the Stream Reach Activities & Disturbances checked above. Which of the above is the greatest detriment to the stream?

If known, what is the predominant land use(s) in this stream's drainage? Is it mostly forested, agriculture, mining, logging, houses, urban? If mining present, is it active or abandoned, deep or strip, valley fills, etc. What is the predominant NPS pollution? Are there point sources above the reach? Indicate if you used maps (GIS) or field verified comments. <u>DO NOT LEAVE THIS BOX BLANK!</u>

Road Notes:

Reviewers Initials		*FIELD WATER & RIPARIAN VEGETATION ZONE MEASURES>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>*			
WQ Sample Location	☐ Mid-Stream ☐ Bank (☐ Left ☐ Right) ☐ Thalweg (☐ Left ☐ Middle ☐ Right) ☐ Left Channel ☐ Right Channel ☐ Cross Section ☐ Other:			**WQ Type**	☐ Profile ☐ Single ☐ Other:
Sonde Method	☐ Grab ☐ Sample Tube ☐ Bucket		**Lab Water Method**	☐ Grab ☐ Sample Tube ☐ Bucket	

Record readings in box for corresponding physicochemical parameter. Insert a √ in the box for other categories.

Flag	Physicochemical Parameters (for a Top of Reach Water Quality Sample)		*Flag*	Physicochemical Parameters (for a Mid-Reach X-Site Water Quality Sample)=Lab Water Location		*Flag*	Physicochemical Parameters (for a Bottom of Reach Water Quality Sample)	
		Temperature °C			Temperature °C			Temperature °C
		pH (std. Units)			pH (std. Units)			pH (std. Units)
		Dissolved Oxygen (mg/L)			Dissolved Oxygen (mg/L)			Dissolved Oxygen (mg/L)
		Conductivity (µmhos/cm)			Conductivity (µmhos/cm)			Conductivity (µmhos/cm)
Transect Name			**Transect Name**			**Transect Name**		
Date		**Time**	**Date**		**Time**	**Date**		**Time**

Sonde I.D. #:_____

If any problems occur with the Water Meter or any readings are suspect, record notes in the space to the right.

Field Water Notes:

Seasonal Water Level		Water Odors		Surface "Oils"		Turbidity	
	Below Normal		Normal		None		Clear
	Normal		Sewage (Not Septic)		Flecks		Slightly Turbid
	Above Normal		Petroleum		Sheen		Moderately Turbid
	Flooding		Chemical		Globs		Highly Turbid
Notes:			Anaerobic (septic)		Slick	**Water color:**	
			Other:				
		Foam/Suds (Rate 0-4 or NR)					

Precipitation Status and History

Current		Past 24 Hours (If Known)		Major Rain Event in past week?	☐ Yes ☐ No

If it is raining or has rained recently, which of the following best describes the peak runoff (flush) condition of the stream at the site when water samples were collected? If the runoff condition is in response to snowmelt, please indicate as such above.

N/A		< 1 Hour		1 to 4 Hours		4 to 12 Hours		12 to 24 Hours		1 to 2 Days		2 to 4 Days		4 to 7 Days		Unknown	

Is the stream level rising, falling, or at baseflow at the time of visit? ☐ Baseflow ☐ Rising ☐ Falling

RAPID HABITAT ASSESSMENT: GLIDE/POOL >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Reviewers Initials	

AN-Code		Date	

HABITAT PARAMETER	CATEGORY			
	Optimal	**Sub-optimal**	**Marginal**	**Poor**
1. EPIFAUNAL SUBSTRATE/ AVAILBLE FISH COVER	**Greater than 50%** of substrate favorable for epifaunal colonization and fish cover; **mix of snags, submerged logs, undercut banks, cobble or other habitat** and at a stage to allow full colonization potential (i.e., logs/snags that are **not new fall** and not transient.	**30 to 50%** mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of **new fall**; but not yet prepared for colonization (may rate at high end of scale.	**10 to 30%** mix of stable habitat; habitat availability is less than desirable; substrate frequently disturbed or removed.	**Less than 10%** stable habitat; lack of habitat is obvious; substrate unstable or lacking.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
2. POOL SUBSTRATE CHARACTER-IZATION	Mixture of substrate materials, with gravel and firm sand **prevalent**; root mats and submerged vegetation are **common**.	**Mixture** of soft sand, mud, or clay; mud may be dominant; some root mats and submerged vegetation are **present**.	**All mud** or **clay** or **sand** bottom; **little or no** root mat; no submerged vegetation.	**Hard-pan clay** or **bedrock**; **no** root mat or vegetation.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
3. POOL VARIABILITY DEEP >1 m (3FT); SHALLOW <1m	Even mix of large[1] –shallow, large-deep, small-shallow, small-deep pools present.	Majority of pools large-deep; very few shallow.	Shallow pools much more prevalent than deep pools.	Majority of pools small-shallow or pools absent.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
4. CHANNEL ALTERATION	Channelization or dredging **absent or minimal**; stream with normal pattern.	**Some** channelization present, usually in areas of bridge abutments; **evidence of past channelization**, i.e. dredging, (**> than past 20 years**) may be present, but no evidence of recent channelization.	Channelization may be **extensive**; embankments or shoring structures **present on both banks**; and **40% to 80%** of the stream reach channelized and disrupted.	Banks shored with **gabion or cement**; **over 80%** of the stream reach is channelized and disrupted. Instream habitat greatly altered or entirely removed.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. SEDIMENT DEPOSITION	**Little or no** enlargement of islands or point **bars** and **less than 20%** of the bottom affected by sediment deposition.	**Some new** increase in **bar** formation, mostly from **gravel, sand, or fine sediment**; **20 to 50%** of the bottom is affected; slight deposition in pools.	**Moderate** deposition of **new gravel, sand, or fine sediment** on **old and new bars**; **50 to 80%** of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	**Heavy** deposits of fine material, increased **bar** development; **more than 80%** of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

Rate in Pools & Depositional Areas

[1] **Large if length, width, or oblique dimension is greater than ½ of the stream width.**

Reviewers Initials		***RAPID HABITAT ASSESSMENT: GLIDE/POOL>>***

HABITAT PARAMETER	**CATEGORY**			
	Optimal	**Sub-optimal**	**Marginal**	**Poor**
6. CHANNEL SINUOSITY	The bends in the stream increase the stream length **3 to 4** times longer than if it was in a straight line.	The bends in the stream increase the stream length **2 to 3** times longer than if it was in a straight line.	The bends in the stream increase the stream length **up to 2** times longer than if it was in a straight line.	Channel is **straight**; waterway has been channelized for a long distance.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. CHANNEL FLOW STATUS	Water reaches the base of both banks and a **minimal area** of channel substrate is exposed.	Water fills **more than 75%** of the available channel; **or less than 25%** of the channel substrate is exposed.	Water fills **25 to 75%** of the available channel; and/or riffle substrates are mostly exposed.	Very little water in channel, and mostly present as **standing pools.**
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. BANK STABILITY	Banks stable; evidence of erosion or bank failure **absent or minimal**; little potential for future problems (**<5%** of bank affected).	Moderately stable; **infrequent, small areas** of erosion mostly healed over; **5-30%** of bank in reach has areas of erosion.	Moderately unstable; **30-60%** of bank in reach has areas of erosion; **high potential** during floods.	Unstable; many eroded areas; **"raw" areas frequent** along straight sections and bends; obvious bank sloughing; **60-100%** of bank has erosional scars.
TOTAL SCORE:	**Determine left/right by facing downstream**			
LEFT:	10 9	8 7 6	5 4 3	2 1 0
RIGHT:	10 9	8 7 6	5 4 3	2 1 0
9. BANK VEGETATIVE PROTECTION	**More than 90%** of the stream bank surfaces and immediate riparian zones (**crest-over**) covered by **native vegetation** including trees, understory shrubs, and non-woody plants (herbs, grasses, ferns, mosses); vegetative **disruption** through grazing or mowing minimal or **not evident**; almost all plants allowed to grow naturally.	**70-90%** of the stream bank surfaces are covered by **native vegetation**, but **one class of plants is not well represented**; **disruption evident**, but not affecting plant growth potential to any great extent; **more than one-half** of the **potential plant** stubble height remaining.	**50-70%** of the stream bank surfaces are covered by **native vegetation**; **disruption obvious**; **patches of bare soil or closely cropped vegetation common**; **less than one-half** of the potential **plant stubble** height remaining.	**Less than 50%** of the stream bank surfaces are covered by **native vegetation**; **disruption** of stream bank vegetation **very high**; **vegetation has been removed to 2 inches or less in average stubble height**.
TOTAL SCORE:	**Rate Non-Native/Invasive Vegetation lower than Native Vegetation** **Rate from bottom of bank to crest-over at top of bank-large roots count**			
LEFT:	10 9	8 7 6	5 4 3	2 1 0
RIGHT:	10 9	8 7 6	5 4 3	2 1 0
10. WIDTH OF UNDISTURBED VEG. ZONE	Width of undisturbed vegetative zone is **>18 meters**; **human activities** (parking lots, roadbeds, clear cuts, lawns, or crops) have **not impacted** this zone.	Zone width is between **12 and 18 meters**; **human activities** have only **minimally impacted** this zone.	Zone width is between **6 and 12 meters**; **human activities** have **impacted** the zone a **great deal**.	Width of zone is **less than 6 meters**; **little or no un-disturbed** vegetation due to **man-induced activities**.
TOTAL SCORE:	**Rate from top of bank crest-over out into the flood plain/adjacent areas** **Undisturbed veg. is trees, shrubs, & non-woody macro-phytes**			
LEFT:	10 9	8 7 6	5 4 3	2 1 0
RIGHT:	10 9	8 7 6	5 4 3	2 1 0
TOTAL:	**Optimal=160-200**	**Sub-Optimal=110-159**	**Marginal=60-109**	**Poor=0-59**

BENTHIC & FISH HABITAT, AESTHETIC, & REMOTENESS RATINGS & EXTRA SPACE **>>>**	**Reviewers Initials**	
AN-Code	**Date**	

PARAMETER	Optimal	Sub-optimal	Marginal	Poor
BENTHIC MACRO-INVERTEBRATE SUBSTRATE	Preferred substrate **abundant**; stable, & at full colonization potential (riffles well developed & **dominated by cobble**; substrate **not** new or **transient**).	Substrate **adequate** for maintenance of populations; **abundance of cobble** with coarse gravel &/or boulders **common**; small areas of new &/or **transient** substrate particles (sand and fine gravel) **may be present**.	Preferred substrate **uncommon**; **some cobble** present but gravel or large boulders & bedrock **prevalent**; **transient** substrate areas may be **frequent**.	Preferred substrate **virtually absent**; gravel or large boulders & bedrock **dominant**; **transient** areas may be **dominant**.
	Rate for entire reach even if the reach is not representative of benthic sample area		**Remember to consult with Biomorph**	
SCORE:	**20 19 18 17 16**	**15 14 13 12 11**	**10 9 8 7 6**	**5 4 3 2 1 0**
FISH HABITAT	Variety of **stable fish habitat** is available in **≥ 75%** of the reach: boulders, undercut banks, woody debris, submerged roots and trees, macrophytes, overhanging veg.(<1m from water surface), filamentous algae, and artificial structures	Fish habitat available in **40 to 75%** of reach; adequate for maintenance of populations; small, **unstable or transient** areas **present**	Preferred habitat less common, available in **10 to 40%** of reach; **featureless** and/or **unstable** areas **more common**	**Less than 10%** of reach with stable, usable habitat; **dominated by featureless** and/or **transient** areas
		Score lower if dominated by filamentous algae or artificial structures		
SCORE:	**20 19 18 17 16**	**15 14 13 12 11**	**10 9 8 7 6**	**5 4 3 2 1 0**
TRASH INDEX	**Little or no** evidence of **human refuse** present.	Human refuse present in **small amounts**.	Human refuse present in **Moderate amounts**.	Human refuse **abundant and unsightly**.
SCORE:	**20 19 18 17 16**	**15 14 13 12 11**	**10 9 8 7 6**	**5 4 3 2 1 0**
REMOTENESS RATING	Stream assessment site **more than ¼ mile** from nearest Road; access difficult and little or **no** evidence of **human disturbance**.	Stream assessment site **within ¼ mile** of roadside; site with **moderately wild** character.	Stream **within ¼ mile** of roadside; **development** activities **evident**.	Segment **immediately adjacent** to roadside access; visual, olfactory, and/or auditory **displeasure experienced**.
SCORE:	**20 19 18 17 16**	**15 14 13 12 11**	**10 9 8 7 6**	**5 4 3 2 1 0**

Is Site A Potential Reference?	☐ **Yes** ☐ **No (Consider Water Chemistry, Benthos, Habitat, Human Disturbance, Location (*i.e.*, Ecoregion), Level I vs. Level II vs. Level III Reference Condition, *etc.*)**
If not a Potential Reference, why?	
Stressor Info (Check all that apply and only those that are definite stressors).	☐ **Sediment** ☐ **Fecal** ☐ **Nutrients** ☐ **Metals** ☐ **pH** ☐ **Sulfate** ☐ **Conductivity** ☐ **Other:**

Please check Other if the site is located 1-2 miles downstream of any impoundment (*e.g.*, lakes, ag. or mining ponds, flood control dams, beaver dams, low water ford/bridge dams) or a valley fill (mining or road) structures. Be sure to include type of structure (with type of impoundment release), distance upstream to the structure, number and size of tributaries in between that may alter the water chemistry (including dilution effects), and size of impoundment in m x m.

☐ **Impoundment:** ☐ **Lake** ☐ **Ag Pond** ☐ **Mining Pond** ☐ **Flood Control** ☐ **Beaver** ☐ **Instream Pool** ☐ **Concrete Low Water Ford/Bridge**

Impoundment Release Type: ☐ **Bottom** ☐ **Spillover**

☐ **Valley Fill:** ☐ **Mining** ☐ **Road (i.e., refuse from highway construction)**

Distance Upstream from Sample Site to Structure (Miles)	
Number of Tributaries Between Structure and Sample Site	
Size of Impoundment (m x m)	

EXTRA SPACE FOR SPILL-OVER COMMENTS AND NOTES BELOW. When using this space, please indicate from which section of the form this is a continuation. For example, "More Sediment Notes" or "More Stream Reach Activities & Disturbances Notes" will allow the data entry person to associate this to the appropriate subform in the database. Also be sure to indicate that there are additional notes here under the appropriate section (*e.g.*, "More Notes on Page 7").

Reviewers Initials		***BENTHIC MACROINVERTEBRATE NON-WADEABLE VS. WADEABLE>>>>>>>>>>>>>>>>>>>>>>>>***

Benthic sample collected?	☐ **Yes** ☐ **No**	**If no, why?**	

Non-Wadeable Collection Method

Benthic collection device	☐ **D-net** ☐ **Kicknet** ☐ **Hand**	**Total # of Jabs**	

Transect	**Transect Jab Substrate Type (Typically 2 Jabs per Transect)**	**Collection Method**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**
	Jab 1: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Boat**
	Jab 2: ☐ **Rocky/Cobble/Woody Debris** ☐ **Macrophyte Beds** ☐ **Organic/Fine Muds** ☐ **Leaf Pack**	☐ **Wading**

Non-Wadeable Collection Notes:

Wadeable Benthic Collection Method

Benthic collection device	☐ **Kicknet** ☐ **D-net** ☐ **Hand**	**Benthic habitat type & #**	***Riffles***		***Runs***	

Benthic kick area depths	**m**	**m**	**m**	**m**

Wadeable Collection Notes:

Inorganic Substrate (**1 m^2 Of Kicked Substrate**)	**Class Codes**	**Size Class**	**% Composition**
Bedrock	**BR**	**Smooth surface rock/hardpan (>4000 mm – bigger than a car)**	**%**
Boulder (BL)	**BL**	**Basketball to car (>250-4000 mm)**	**%**
Cobble (CB)	**CB**	**Tennis ball to basketball (>64-250 mm)**	**%**
Coarse Gravel (CG)	**CG**	**Marble to tennis ball (>16-64 mm)**	**%**
Fine Gravel (FG)	**FG**	**Ladybug to marble (>2-16 mm)**	**%**
Sand (SA)	**SA**	**Gritty – up to ladybug (>0.06-2 mm)**	**%**
Silt & Fines (ST)	**ST**	**Fine – not gritty (<0.06 mm)**	**%**
Clay (CL)	**CL**	**Slick/ hard clay or hard-pan clay**	**%**

Enter estimated % composition for each substrate type. *******MACS SITES*: estimate over entire 100 meter stream reach.******

Describe the benthic sampling substrate quality in terms of relative sizes (e.g., small-sized vs. large-sized cobble or boulders), shapes (globular vs. flat vs. angular), texture (e.g., rough vs. smooth bedrock), layering (i.e., was the cobble stacked) and embeddedness (embedded by pea gravel vs. sand/silt). Also mention any unusual substrate features (e.g., trash or unnatural substrate that was sampled as substrate) and provide general comments about the benthic sample substrate.

Wadeable Substrate Notes:

BENTHIC COMPARABILITY, PERIPHYTON/ALGAE/AQ. PLANT INFO, FISH COL INFO>>>>>	Reviewers Initials	
AN-Code	Date	

Benthic sample comparability	Was benthic sample comparable with respect to riffle/run depth and velocity?	☐ Yes ☐ No
	Is there evidence that the stream channel was scoured by recent flooding or high flows?	☐ Yes ☐ No
	Is it possible that sample areas were dry or partially dry for an extended period before sample was taken?	☐ Yes ☐ No
	Is there evidence that the stream is "wet-weather" and flowing only in response to recent rainfall?	☐ Yes ☐ No

Use the space below to describe the site and explain responses to the previous questions. What organisms were put in the jar?

Periphyton/Plant Abundance

Indicate abundance of each: 0=None, 1=Low, 2=Moderate, 3=High, 4=Extreme, NR=Not Rated	Periphyton (*Brown-slick; Diatoms*)		Filamentous Algae (*Green; Long*)		Blue-Green Algae (*Blueish-Green Slime; Not Long*)		Aquatic Mosses	
	Submerged Aquatic Plants (*e.g., Stargrass, Hydrilla*)		Emergent Aquatic Plants (*e.g., Water Willow*)		Floating Aquatic Plants (*e.g., Lily Pads, Duckweed*)		Total Aquatic Plants	

Periphyton/Algae/Aquatic Plants & Mosses Notes:

Fish Collection Info

Fish sample collected?	☐ Yes ☐ No	If no, why?	
Field Identified By		Fish Methodology	☐ Electrofishing ☐ Netting ☐ Bait ☐ Passive ☐ Other:
Fish Collection Devices	☐ EF Boat (Motorized) ☐ EF Boat (Floating) ☐ Parallel Wires ☐ Backpack Shocker ☐ Seine Net ☐ Trawl Net ☐ Gill Netting ☐ Cast Net ☐ Rod & Reel ☐ Trot Lines		

Electrofishing Info	Total Shock Time (Seconds)		Voltage (v)		Frequency (Hz)		Electrofisher ID #	
Pass Count		Total Fishing Time (Minutes)		# of Netters		# of Shockers		Fishing Reach Length (m)	

Is the sample IBI Comparable?	☐ Yes ☐ No	If no, why?	

Fish Sampling Notes:

Reviewers Initials		*LANDOWNER/STAKEHOLDER INFORMATION, RECON, & PHOTOS >>>>>>>>>>>>>>>>>>>>>>>*	
Landowner/ Stakeholder Name		**Landowner/ Stakeholder Name**	
Address		**Address**	
1°Phone #	**( )**	***1°Phone #***	**( )**
ALT #	**( )**	***ALT #***	**( )**
Stream Data Requested [ ]	**WS Report Requested [ ]**	**Stream Data Requested [ ]**	**WS Report Requested [ ]**
Other Pertinent Landowner Information (e.g., email) & Comments:		**Other Pertinent Landowner Information (e.g., email) & Comments:**	

Discuss the accessibility to the site including accessibility, posted property, fenced, beside road, long walk over treacherous terrain, hike length, 4 x 4 needed, get key from landowner, etc.

Check all that apply: ☐ Easy Access ☐ Difficult Access ☐ Public Property ☐ Private Property ☐ Posted ☐ Fenced ☐ Gated ☐ Get Key from Landowner ☐ Beside Road ☐ Short Hike ☐ Long Hike ☐ 4x4 Needed ☐ Other (explain)

Recon/Accessibility Notes:

Photography Log >>>>>>>>>>>>>>>>>	Camera Type		Camera Number	

#	Photo ID (office)	Disk Photo # (field)	Stream Name and/or AN-Code	Photo Description (Use Key Words)	Date	Photographer
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						